SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

GIGA-BYTE Technology Co. Ltd.
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

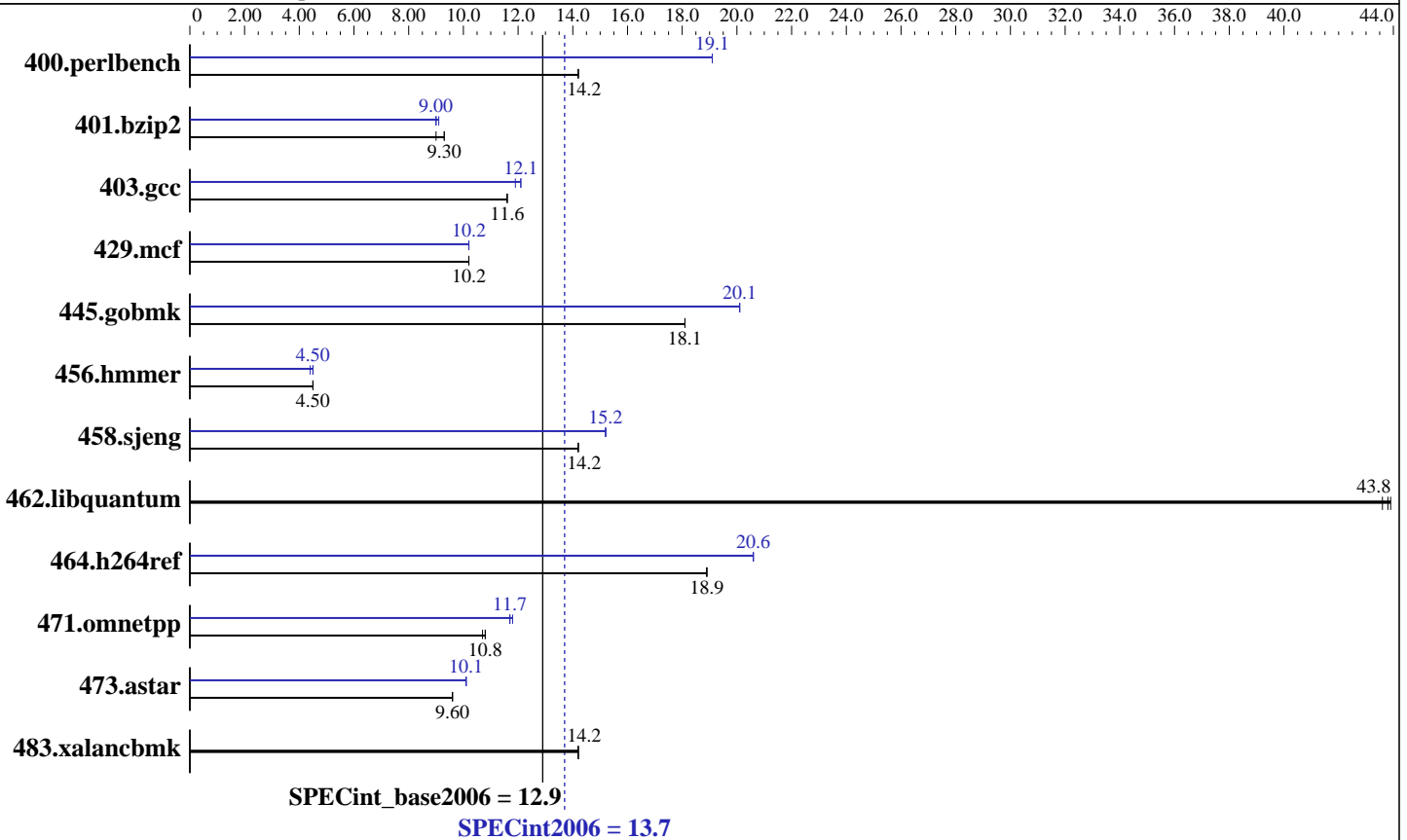$SPECint®2006 =$ 13.7

$SPECint\_base2006 =$ 12.9

CPU2006 license: 13		**Test date:**	Jan-2009
Test sponsor:	Intel Corporation	**Hardware Availability:**	Feb-2007
Tested by:	Intel Corporation	**Software Availability:**	Nov-2008

Benchmark results (peak / base):

- 400.perlbench: 19.1 / 14.2
- 401.bzip2: 9.00 / 9.30
- 403.gcc: 12.1 / 11.6
- 429.mcf: 10.2 / 10.2
- 445.gobmk: 20.1 / 18.1
- 456.hmmer: 4.50 / 4.50
- 458.sjeng: 15.2 / 14.2
- 462.libquantum: 43.8
- 464.h264ref: 20.6 / 18.9
- 471.omnetpp: 11.7 / 10.8
- 473.astar: 10.1 / 9.60
- 483.xalancbmk: 14.2

SPECint_base2006 = 12.9
SPECint2006 = 13.7

Hardware
CPU Name:	AMD Athlon X2 6000+
CPU Characteristics:	
CPU MHz:	3100
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core
L3 Cache:	None
Other Cache:	None
Memory:	4 GB (4x1GB DDR2-800 CL5)
Disk Subsystem:	Seagate 320 GB SATA, 7200RPM
Other Hardware:	None

Software
Operating System:	Windows Vista Ultimate w/ SP1 (64-bit)
Compiler:	Intel C++ Compiler Professional 11.0 for IA32 Build 20080930 Package ID: w_cproc_p_11.0.054 Microsoft Visual Studio 2008 (for libraries)
Auto Parallel:	Yes
File System:	NTFS
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	SmartHeap Library Version 8.1 from http://www.microquill.com/

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

GIGA-BYTE Technology Co. Ltd.
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

SPECint2006 =	13.7
SPECint_base2006 =	12.9

CPU2006 license: 13	**Test date:** Jan-2009
Test sponsor: Intel Corporation	**Hardware Availability:** Feb-2007
Tested by: Intel Corporation	**Software Availability:** Nov-2008

Results Table

Benchmark	Base						Peak					
	Seconds	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	687	14.2	686	14.2	**687**	**14.2**	512	19.1	511	19.1	**511**	**19.1**
401.bzip2	**1041**	**9.30**	1037	9.30	1074	9.00	**1067**	**9.00**	1065	9.10	1075	9.00
403.gcc	694	11.6	**695**	**11.6**	695	11.6	**666**	**12.1**	676	11.9	665	12.1
429.mcf	**895**	**10.2**	895	10.2	894	10.2	**894**	**10.2**	895	10.2	893	10.2
445.gobmk	580	18.1	580	18.1	**580**	**18.1**	523	20.1	523	20.1	**523**	**20.1**
456.hmmer	2081	4.50	**2087**	**4.50**	2090	4.50	**2094**	**4.50**	2089	4.50	2100	4.40
458.sjeng	855	14.2	855	14.2	**855**	**14.2**	798	15.2	**798**	**15.2**	798	15.2
462.libquantum	**473**	**43.8**	473	43.9	475	43.6	**473**	**43.8**	473	43.9	475	43.6
464.h264ref	1171	18.9	**1171**	**18.9**	1171	18.9	**1076**	**20.6**	1076	20.6	1076	20.6
471.omnetpp	582	10.7	**581**	**10.8**	580	10.8	532	11.7	**532**	**11.7**	532	11.8
473.astar	731	9.60	**731**	**9.60**	731	9.60	698	10.1	**698**	**10.1**	698	10.1
483.xalancbmk	487	14.2	**487**	**14.2**	487	14.2	487	14.2	**487**	**14.2**	487	14.2

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

```
Tested systems can be used with Shin-G ATX case, Antec NeoPower 480W power supply
Binaries were built on Windows Vista Ultimate (32-bit)
OMP_NUM_THREADS set to number of logical processors as seen by the OS
KMP_AFFINITY set to physical,0
The system as described on this result page was formerly generally
available, but is no longer generally available.  It may or may
not be supported.
This benchmark result is intended to provide perspective on past
[power and/or] performance for the hardware and software
described on this result page.
```

Base Compiler Invocation

C benchmarks:
```
icl -Qvc9 -Qc99
```

C++ benchmarks:
```
icl -Qvc9
```

Base Portability Flags

```
403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

GIGA-BYTE Technology Co. Ltd.
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

SPECint2006 =   13.7

SPECint_base2006 =   12.9

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Jan-2009
Hardware Availability: Feb-2007
Software Availability: Nov-2008

Base Portability Flags (Continued)

483.xalancbmk: `-Qoption,cpp,--no_wchar_t_keyword`

Base Optimization Flags

C benchmarks:
```
/arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel
-Qpar-runtime-control -Qvec-guard-write /F512000000
```

C++ benchmarks:
```
/arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features
/F512000000 shlw32m.lib          -link /FORCE:MULTIPLE
```

Base Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks:
```
icl -Qvc9 -Qc99
```

C++ benchmarks:
```
icl -Qvc9
```

Peak Portability Flags

403.gcc: `-DSPEC_CPU_WIN32`
464.h264ref: `-DSPEC_CPU_NO_INTTYPES -DWIN32`
483.xalancbmk: `-Qoption,cpp,--no_wchar_t_keyword`

Peak Optimization Flags

C benchmarks:

400.perlbench: `/arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)`
`-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch`
`/F512000000 shlw32m.lib          -link /FORCE:MULTIPLE`

Continued on next page

SPEC CINT2006 Result

GIGA-BYTE Technology Co. Ltd.
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

$SPECint2006 = $ 13.7

$SPECint_base2006 = $ 12.9

CPU2006 license: 13	**Test date:** Jan-2009
Test sponsor: Intel Corporation	**Hardware Availability:** Feb-2007
Tested by: Intel Corporation	**Software Availability:** Nov-2008

Peak Optimization Flags (Continued)

```
    401.bzip2: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
               -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias
               /F512000000

      403.gcc: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
               -Qipo -O3 -Qprec-div- /F512000000

      429.mcf: /arch:SSE2 -Qipo -O3 -Qprec-div- -Qopt-prefetch
               /F512000000

    445.gobmk: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
               -Qipo -O2 -Qprec-div- -Qansi-alias /F512000000

    456.hmmer: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
               -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias /F512000000

    458.sjeng: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
               -Qipo -O3 -Qprec-div- -Qunroll4 /F512000000

462.libquantum: basepeak = yes

    464.h264ref: Same as 456.hmmer
```

C++ benchmarks:

```
    471.omnetpp: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
                 -Qipo -O3 -Qprec-div- -Qansi-alias
                 -Qopt-ra-region-strategy=block /F512000000 shlw32m.lib
                          -link /FORCE:MULTIPLE

      473.astar: /arch:SSE2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
                 -Qipo -O3 -Qprec-div- -Qansi-alias
                 -Qopt-ra-region-strategy=routine /F512000000 shlw32m.lib
                          -link /FORCE:MULTIPLE

  483.xalancbmk: basepeak = yes
```

Peak Other Flags

C benchmarks:

```
      403.gcc: -Dalloca=_alloca
```

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.20090818.html

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

GIGA-BYTE Technology Co. Ltd.
(Test Sponsor: Intel Corporation)

Gigabyte MA78GM-S2H Motherboard (AMD Athlon X2 6000+)

SPECint2006 =   13.7

SPECint_base2006 =   12.9

CPU2006 license: 13	**Test date:** Jan-2009
Test sponsor: Intel Corporation	**Hardware Availability:** Feb-2007
Tested by: Intel Corporation	**Software Availability:** Nov-2008

You can also download the XML flags source by saving the following link:

http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.20090818.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 03:37:00 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 18 August 2009.